# UNITED STATES PATENT APPLICATION

## METHODS AND SYSTEMS FOR FACILITATING TRANSACTIONS BETWEEN COMMERCIAL BANKS AND POOLED DEPOSITOR GROUPS

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## Description

# METHODS AND SYSTEMS FOR FACILITATING TRANSACTIONS BETWEEN COMMERCIAL BANKS AND POOLED DEPOSITOR GROUPS

## Technical Field

5    The present invention relates to methods, systems, and computer program products for facilitating financial transactions between commercial banks and pooled depositor groups. More particularly, the present invention relates to methods and systems for providing liquid deposit opportunities for

10    pooled depositor groups and for providing deposit funds from the pooled depositor groups to commercial banks that the commercial banks may be permitted by regulatory authorities to count as stable deposits.

## Background Art

15    In the banking industry, it is desirable to maintain a certain percentage of core deposits. Core deposits are deposits that do not change significantly in amount with fluctuations in the interest rate paid on the deposits. Savings account deposits are one example of a bank's core deposits. In the United States, the percentage of core deposits affects the bank's ability to maintain a

20    favorable regulatory rating.

In addition to core deposits, banks often rely on non-core funding sources, such as brokered CDs.  Brokered CDs are offered by a bank to retail customers through a deposit broker.  Brokered CDs are less stable as a source of funds for banks than core deposits because depositors in brokered CDs are

5    typically sensitive to interest rate fluctuations.

Another problem with using brokered CDs to obtain cash is that in the United States, if a bank maintains too high of a percentage of brokered deposits, the bank may be sanctioned by a regulatory agency, such as the Federal Reserve for federally chartered banks or a state banking agency for

10   state chartered banks.  Yet another problem associated with using brokered deposits is that banks are required to pay a broker's commission for brokered deposits.  Thus, in the banking industry, there exist a need for a new way for banks to obtain stable funds.

Pooled depositor groups, such as trust departments, pension funds,

15   government entities, insurance companies, and any entities that are allowed to make deposits into a negotiated order of withdrawal (NOW) account, are constantly looking for safe, insured deposit vehicles for their funds.  In addition, it is desirable for individual depositors in a pooled depositor group to be able to access funds without penalty on a short-term basis.  Conventionally, pooled

20   depositor groups have invested in money market funds.  However, investing in money market funds is undesirable because money market funds have historically paid low interest rates.  Certificates of deposit are undesirable because money is not accessible on a short-term basis without paying a penalty.  In addition, under current FDIC regulations, an individual's deposits at

a single institution in excess of $100,000 are not federally insured. As a result, in order to fully insure a depositor's investment, a trust department is required to divide a depositor's assets in excess of $100,000 among multiple banks. Accordingly, in light of these difficulties associated with conventional

5    investment vehicles, there exists a need for an insured or collateralized deposit vehicle for pooled depositor groups.

## Disclosure of the Invention

In order to address the aforementioned problems associated with providing cash to commercial banks and providing insured, liquid deposit

10    opportunities for pooled depositor groups, one aspect of the invention includes a method and associated computer software for facilitating transactions between pooled depositor groups and commercial banks. In one exemplary method, banks and depositor groups register with a control center. Control

15    center employees may solicit deposit cash from different pooled depositor groups and aggregate the deposit cash of the multiple pooled depositor groups to produce a stable source of funds. The control center may then notify banks of the stable source of funds and inquire as to the interest rate that banks are willing to pay for the stable source of funds.

20    In order to receive funds from the stable source of funds, a bank will post a master NOW account with an appointed custodian. The control center sets an interest rate to be paid on the NOW accounts based on the rate that the bank is willing to pay for all or a portion of the stable funds source and the rate of return that the pooled depositor groups expect on their deposits. The

control center notifies the depositor group of the availability of the NOW account at the specified interest rate. The depositor group then deposits funds in the NOW account. The control center monitors transactions between the pooled depositor groups and the custodian and between the custodian and the

5   banks and generates reports.

Because the control center aggregates deposit funds of multiple pooled depositor groups, the pooled depositor groups should be able to offer a stable source of funds to commercial banks. As a result, banks are permitted to treat the funds received from the pooled depositor groups as stable deposits. In

10  addition, money deposited in the master NOW accounts are FDIC insured up to $100,000 for any single depositor within the pooled depositor group. Through the control center, funds in excess of $100,000 to any single depositor are deposited in separate banks to insure FDIC coverage or the banking institution collateralizes the funds in excess of $100,000. However, by using a master

15  NOW account, funds from a depositor group in excess of $100,000 can be fully insured provided that funds from individual depositors within the group do not exceed $100,000, as per a recent statement from the FDIC. Thus, if a depositor group of 100 depositors with $50,000 each deposits funds in a master NOW account with a single bank, the entire amount will be FDIC

20  insured.

Another advantage of using master NOW accounts is that depositors are allowed to withdraw money from a master NOW account on a daily basis without penalty. As a result, using master NOW accounts provides a liquidity advantage over conventional certificates of deposit.

The following definitions apply to the corresponding terms used herein:

1.    Commercial bank: A bank chartered by a state or federal agency with the ability to receive time and demand deposits, to make commercial and mortgage loans, and to have insured deposits.

5        In the United States, the deposits of a commercial bank are insured by the Federal Deposit Insurance Corporation (FDIC).

2.    NOW account: A NOW account refers to a negotiated order of withdrawal account, which is an account with a commercial bank that permits unlimited activity with regard to deposits and

10       withdrawals.

3.    Master NOW account: A NOW account having a predetermined limit as to the total amount that can be deposited against the account. This limit may be determined by an agreement between the commercial bank posting the account and the control center.

15    4.    Custodian: An entity, such as a bank, with the power granted by a state or federal agency to hold assets on behalf of a pooled depositor group or a commercial bank.

5.    Core deposit: A class of deposits deemed by an agency, such as the FDIC, to be stable (constant, minimum fluctuation in total

20       amount, and available at a reasonable cost.)

6.    Pooled depositor group: A group of individuals or entities that pool funds for deposit purposes and that are permitted to deposit funds in a NOW account. Examples of pooled depositor groups include trust departments, pension funds, and government

entities. Currently, commercial businesses are not permitted to deposit funds in a NOW account.

7. Certificate of deposit: A certificate showing evidence of funds deposited for a specific period of time at a specific rate. The funds in a CD are not available for early withdrawal without specified penalties. CDs in excess of $100,000 are negotiable and are traded by dealers in money market investments.

8. Control center: A point through which information flows for controlling transactions between commercial banks and pooled depositor groups is controlled.

9. Stable funds: Pooled funds offered to commercial banks that preferably do not fluctuate significantly in amount as the interest rate changes.

10. Hot funds: Funds available from a pooled depositor group for a short-term deposit or a specific transaction. A different rate may be negotiated for each transaction.

11. Term funds: Funds available from a pooled depositor group offered to investment entities that need money for specified terms, such as 30 days, 60 days, 90 days, or 120 days. Conventionally, such funds have gone into CDs. However, community banks can pay higher rates for these funds because they are instant and avoid going to the brokerage CD market. Rates may be negotiated on individual transactions.

As indicated above, the custodian's duties are to hold assets on behalf of pooled depositor groups and commercial banks. In addition custodians may have the following duties:

1. Establish a custody account for the control center in which the following transactions will be reflected.

2. Within the custody account, establish an asset record for each commercial bank master NOW account. The asset amount will reflect the total deposit by all depositors in each NOW account. The control center will provide instructions regarding the setup of new NOW accounts within a reasonable period of time prior to the funding of particular NOW accounts.

3. Receive federal funds wires on a daily basis from various depositors who have signed agreements with the control center. The funds must be received within a reasonable period of time to be invested on the same day.

4. In conjunction with each incoming wire, accept written direction from the control center (e.g., by fax or e-mail) with regard to the application of funds. Direction must be received within a reasonable period of time for same-day deposit and will include the amount to be received and the name of the bank to which funds will be wired (for deposit-purchase into the selected NOW account). If volumes increase dramatically, the deadline for directions may be changed to an earlier time.

5.    Wire funds received within a reasonable period of time from depositors to various commercial banks on a daily basis, as instructed by the control center, before the close of business on the day the funds are received.

6.    Reconcile holdings in the custody account to statements received from NOW account issuers (commercial banks).

7.    As earnings are added to NOW accounts each month, post the addition of those earnings to each NOW account held in the custody account in order to bring the custody account holdings current with issuing commercial bank records.

8.    As depositors request funds, withdraw principal from various NOW accounts on a daily basis (e.g., via funds wires) as instructed by the control center.

9.    Wire withdrawn monies back to depositors on a daily basis as instructed by the control center.

10.    Once a month, receive by wire an earnings spread on the NOW accounts from each issuing commercial bank and wire to the control center the earnings spread minus the custodian fee. The earnings spread will be determined on each NOW account by the control center. The control center may choose a different method for distribution: the earnings spread may be wired directly to the control center by the issuing commercial bank, rather than through the custodian. If this method of payment is

chosen, the custodian will send a monthly invoice to the control center, which will be paid within 30 days of receipt.

Accordingly, it is an object of the invention to provide improved methods and systems for facilitating transactions between commercial banks and pooled

5    depositor groups.

It is another object of the invention to provide a short-term liquid deposit vehicle for pooled depositor groups that is fully FDIC insured up to $100,000 or is collateralized from any single individual within a pooled depositor group.

Some of the objects of the invention having been stated hereinabove,

10   and which are addressed in whole or in part by the present invention, other objects will become evident as the description proceeds when taken in connection with the accompanying drawings as best described hereinbelow.


## Brief Description of the Drawings

15   Preferred embodiments of the invention will now be explained with reference to the accompanying drawings of which:

Figure 1 is a block diagram of a system for facilitating financial transaction between commercial banks and pooled depositor groups according to an embodiment of the present invention;

20   Figure 2 is a flow chart illustrating exemplary steps for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 3 is a tree diagram illustrating an exemplary web site map for a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 4 is block diagram of an exemplary login screen of a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 5 is a block diagram illustrating an exemplary market information screen for a pooled depositor group in a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 6 is a block diagram illustrating an exemplary deposit screen for a pooled depositor group in a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 7 is a block diagram of an exemplary withdrawal screen for a pooled depositor group in a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 8 is a block diagram illustrating an exemplary account screen for a pooled depositor group in a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 9 is a block diagram illustrating an exemplary transaction screen for a pooled depositor group in a system for facilitating transactions between

commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 10 is a block diagram illustrating an exemplary business rules screen for a pooled depositor group in that may be associated with a system for

5    facilitating transactions between commercial bans and pooled depositor groups according to an embodiment of the present invention;

Figure 11 is a block diagram of an exemplary market information screen for a commercial bank in a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of

10    the present invention;

Figure 12 is a block diagram illustrating an exemplary borrow screen for a commercial bank in a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

15    Figure 13 is a block diagram illustrating an exemplary repay screen for a commercial bank in a system for facilitating transactions between commercial and pooled depositor groups according to an embodiment of the present invention;

Figure 14 is a block diagram illustrating an exemplary accounts screen

20    for a commercial bank in a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 15 is a block diagram of an exemplary transactions screen for a commercial bank in a system for facilitating transactions between commercial

banks and pooled depositor groups according to an embodiment of the present invention;

Figure 16 is a block diagram of an exemplary business rules screen for a commercial bank in a system for facilitating transactions between commercial

5      banks and pooled depositor groups according to an embodiment of the present invention;

Figure 17 is a block diagram of an exemplary market management screen for a custodian in a system for facilitating transactions between a commercial bank and a pooled depositor group according to an embodiment of

10     the present invention;

Figure 18 is a block diagram illustrating an exemplary lenders screen for a custodian in a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

15     Figure 19 is a block diagram illustrating an exemplary borrowers screen for a custodian in a system for facilitating transactions between commercial banks and pooled depositors groups according to an embodiment of the present invention;

Figure 20 illustrates an exemplary accounts screen for a custodian in a

20     system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 21 is a block diagram illustrating an exemplary transactions screen for a custodian in a system for facilitating transactions between

commercial banks and pooled depositor groups according to an embodiment of the present invention;

Figure 22 is a block diagram illustrating an exemplary business rules screen for a custodian in a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention; and

Figure 23 is a block diagram illustrating an exemplary customer screen for an administrator a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention.

## Detailed Description of the Invention

Figure 1 illustrates a system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present invention. In Figure 1, block **100** represents pooled depositor groups that have available cash to invest in insured, liquid deposit opportunities. A depositor interface **102** is provided for these groups to access insured, liquid deposit opportunities created based on cash needed by commercial banks for core deposits. The cash that pooled depositor groups **100** have available for deposit may originate from deposits, represented by block **104**. The deposits may be from individual trusts, taxpayers, retirement funds, or other suitable cash source.

A custodian **108** may be provided as a trusted intermediary through which pooled depositor groups **100** may make their deposit cash available. In

one example, custodian **108** may be a known financial institution, such as a national bank. However, the present invention is not limited to using a custodian to facilitate transactions between commercial banks and pooled depositor groups. In one implementation, custodian **108** may be omitted and

5    control center **106** may function as a custodian for the commercial banks and the pooled depositor groups.

In the illustrated example, both control center **106** and custodian **108** include software interfaces **110** and **112**. Software interface **110** at control center **106** allows control center **110** to view transactions made through

10    custodian **108**. Custodian interface **112** allows custodian **108** to view accounts and transfer cash to and from the accounts.

On the right hand side of the diagram, commercial banks **114** may need cash for core deposits to cover loans **116**. Alternatively, or in addition, banks **114** may need term funds or hot funds. In order to obtain needed funds, banks

15    **114** register with control center **106** and post master NOW accounts with custodian **108**. Commercial banks software interface **118** allows banks to post to master NOW accounts and notifies banks **114** of the interest rate to be paid on cash obtained by banks **114** from custodian **108**. In order to provide an insured, liquid deposit opportunity for depositors **100** and cash to banks **114**,

20    an interest rate that is attractive to both depositors **100** and commercial banks **114** must be determined. In a preferred embodiment of the invention, depositors **100** are offered a first interest rate, and commercial banks pay a second interest rate, where the second interest rate is higher than the first interest rate. The owners of control center **106** may be able to obtain favorable

interest rates from commercial banks **114** by aggregating cash from multiple

pooled depositor groups. Based on the difference in interest rates, the owners

of control center **106** may fund operations and preferably make a profit. Once

the interest rates are set, control center **106** communicates the first interest

5    rate to depositors **100** via depositor interface **102** and communicates the

second interest rate to banks **114** via commercial banks interface **118**. Both

interest rates are preferably guaranteed for a fixed term, such as one month.

In addition, depositors **100** are preferably allowed to withdraw cash deposited

without penalty in predetermined amounts at predetermined time intervals. For

10   example, the cash deposited by depositors **100** may be made available without

penalty to the depositors in denominations of $1 on a daily basis.

Because the software illustrated in Figure 1 provides a convenient

deposit vehicle for commercial banks to obtain stable money for core deposits

and term funds, commercial banks **114** can reduce their percentages of

15   brokered deposits and thereby increase the likelihood of a favorable regulatory

rating. In addition, the system and software illustrated in Figure 1 provides a

convenient liquid deposit opportunity for depositors. Thus, the system

illustrated in Figure 1 facilitates transactions between commercial banks and

pooled depositor groups.

20   Figure 2 is a flow chart illustrating exemplary steps that may be

performed by control center **106** in facilitating transactions between commercial

banks and pooled depositor groups according to an embodiment of the present

invention. Referring to Figure 2, in step **200**, banks and depositor groups

register with control center **106**. For the banks, the registration may include

qualifying as a commercial bank in accordance with predetermined standards, such as federal or state regulatory standards. For pooled depositor groups **100**, registration may also include qualifying as an entity permitted to make deposits in a NOW account and guaranteeing a predetermined amount of

5     deposit cash.

After registration, a pooled depositor group **100** may contact control center **106** with a deposit need. For example, pooled depositor group **100** may indicate to control center **106** that depositor group **100** desires to deposit $10 million, wants a return of 2%, and desires for individual depositors to be able to

10    access the money on a daily basis. Step **202** may occur multiple times as the operators of control center **106** determine available cash from different pooled depositor groups.

In step **204**, control center **106** aggregates the deposit needs of multiple pooled depositor groups to produce a stable funds source. As discussed

15    above, providing a stable funds source to commercial banks is important so that the commercial banks can consider the funds core deposits. In step **206**, control center **106** notifies commercial banks of the amount of money available, and inquires as to the interest rate that the banks are willing to pay for the money. For example, a bank may agree to pay 235 basis points for $10

20    million, where basis point is equal to one one-hundredth of one percent. In step **208**, banks **114** post master NOW accounts with custodian **108**. In step **210**, control center **106** sets the interest rate to be paid to the pooled depositor group lower than rate that the bank is willing to pay and at or above the rate that the pooled depositor group expects and notifies the depositor group of the

availability of a NOW account at the interest rate. Continuing with the example, if the depositor group expects 200 basis points, control center **106** may set the interest rate to be paid to the trust department to at least 200 basis points. Since the bank is willing to pay 235 basis points, control center **106** can

5 generate up to 35 basis points in revenue.

In step **212**, the depositor group deposits funds with custodian **108**. Custodian **108** places the funds in one or more master NOW accounts in accordance with instructions from control center **106**. In step **214**, control center **106** manages transactions and generates reports to both the depositor

10 group **100** and commercial banks **114**. Managing transactions may include providing wiring instructions to depositor **100**, custodian **108**, and banks **114**. In addition, managing transactions may include providing sub-accounting information to custodian **108** regarding individual depositors in a pooled depositor group so that individual depositors' deposits can be FDIC insured.

15 Managing transactions may also include collecting interest paid by commercial banks **114** and distributing the interest to depositors. Yet another aspect of managing the transactions may include coordinating withdrawals made by depositors **100** in a manner that reduces transactions and wiring expenses. Two methods for coordinating withdrawals will be described in detail below.

20 Because the money is deposited in master NOW accounts, pooled depositor groups are allowed to withdraw funds without penalty on a daily basis. Thus, the invention provides an advantage to depositor groups over conventional certificates of deposit.

In one exemplary implementation, a system for facilitating transactions between commercial banks and pooled depositor groups may be implemented using a web server that provides the interfaces illustrated in Figure 1. Such a web server may be implemented using any suitable commercially available web

5    server platform, such as an Apache web server. Each interface illustrated in Figure 1 may be implemented as an application capable of executing on such a platform. Figure 3 is a tree diagram illustrating an exemplary website map for a web implemented system for facilitating transactions between commercial banks and pooled depositor groups according to an embodiment of the present

10    invention. Referring to Figure 3, an exemplary website map **300** includes a login screen **302** that provides access to interfaces **102, 110, 112,** and **118** illustrated in Figure 1. Each interface may include a series of computer screens or web pages tailored to the functionality provided by the interface. In the illustrated example, pooled depositor group interface **102** includes a market

15    information page **304**, a deposit page **306**, a withdrawal page **308**, an accounts page **310**, a transactions page **312**, a business rules page **314**, and a profile page **316**. Each of the pages **304-316** are preferably tailored to allow pooled depositor groups to obtain rate information provided by commercial banks, deposit money in master NOW accounts, withdraw money from the master

20    NOW accounts on a daily basis, and view transaction information.

Commercial banks interface **118** includes a market information page **318**, a borrow page **320**, a repay page **322**, an accounts page **324**, a transactions page **326**, a business rules page **328**, and a profile page **330**. Pages **318-330** are preferably tailored to allow a commercial bank to post

master NOW accounts, to view the status of master NOW accounts, to repay

obligations on master NOW accounts, and to perform other actions related to

obtaining deposit cash from pooled depositor groups.

Custodian interface **112** includes a market management page **332**, a

5    lenders page **334**, a borrowers page **336**, an accounts page **338**, a transactions

page **340**, and a business rules page **342**. Pages **332-342** are preferably

tailored to allow a custodian to manage transactions between commercial

banks and pooled depositor groups.

Administrator interface **110** includes a market management page **344**, a

10    customers page **346**, an accounts page **348**, an FDIC information page **350**, a

business rules page **352**, a reports page **354**, and a system administration

page **356**. Pages **344-356** are preferably structured to allow administrator

interface **110** to control transactions between pooled depositor groups and

commercial banks. Each of the web pages illustrated in Figure 3 will now be

15    described in further detail.

Figure 4 illustrates an example of a login screen **302**. In the example

login screen, a user is requested to enter a user ID and a password. Based on

the user ID and the password, the user will be directed to the appropriate

interface **102, 110, 112**, or **118**.

20    Figure 5 illustrates an example of market information page **304** for a

pooled depositor group. In the illustrated example, web page **304** includes a

toolbar **500** that allows a pooled depositor group to access other pages

associated with pooled depositor group interface **102**. In the illustrated

example, pooled depositor group interface **304** includes a market information

section including market information of interest to a pooled depositor group. In the illustrated example, market information section **502** includes a cash demand field **504**, a cash available field **506**, a current interest rate field **508**, a start date field **510**, an end date field **512**, and a terms and conditions field **514**.

5 Cash demand field **504** stores demand for cash by commercial banks **114**. This number may be updated by control center **106** on a daily basis based on demand received from commercial banks. Cash available field **506** may display cash available from the particular pooled depositor group. Current interest rate field **508** may display the current interest rate to be paid to the

10 pooled depositor group set by control center **106**. Start and end date fields **510** and **512** may display the start and end dates at which the current interest rate is available. Finally, terms and conditions field **514** may store terms and conditions associated with payback of the funds.

Figure 6 illustrates an example of a deposit page **306** that may be

15 displayed to a pooled depositor group. In the illustrated example, deposit page **306** includes various fields that allow a pooled depositor group to make a deposit. These fields may include a from account field **600**, a to account field **602**, an amount field **604**, a deposit date field **606**, a terms and conditions field **608**, and a submit button **610**. From account field **600** is an input field that

20 allows a pooled depositor group to indicate an account from which a deposit is authorized. To account field **602** may indicate master NOW accounts issued by various pooled depositor groups. Amount field **604** may store an amount that a pooled depositor group desires to withdraw from an account and deposit in a master NOW account. Deposit date field **606** is an input field that allows a

depositor to input a date on which a deposit is to occur. Terms and conditions field **608** may display terms and conditions associated with the transaction. Finally, support button **610** may initiate functionality for depositing the funds in an account associated with a commercial bank.

5        Figure 7 illustrates an exemplary withdrawal page **308** associated with pooled depositor group interface **102**. In the illustrated example, withdrawal page **308** includes various fields for allowing a pooled depositor group to withdraw money from an account with custodian **108**. These fields may include a from account field **700**, a to account field **702**, an amount field **704**, a

10      withdrawal date field **706**, and a submit button **610**. From account field **700** allows a pooled depositor group to specify an account with custodian **108** from which funds are to withdrawn. To account field **702** allows a pooled depositor group to specify an account to which the funds are to be deposited. Amount field **704** specifies an amount of the withdrawal. Withdrawal date field **706**

15      allows the pooled depositor group to specify a withdrawal date for the funds. Submit button **610** allows the pooled depositor group to initiate steps to complete the transaction. As discussed above, funds deposited in master NOW accounts are preferably accessible by pooled depositor groups on a daily basis without penalty, thus providing liquidity advantages over conventional

20      certificates of deposit.

        Figure 8 illustrates an example of an accounts page **310** associated with pooled depositor group interface **102**. In Figure 8, accounts page **310** includes an accounts data section **800** that stores date regarding accounts of a pooled depositor group. In Figure 8, accounts data section **310** includes an account

field **802**, a manager field **804**, a total value field **806**, a last value field **808**, a

last date field **810**, an edit field **812**, and a delete field **814**. Account field **802**

may identify accounts of a pooled depositor group. Manager field **804** may

indicate the custodian managing the account. Total value field may indicate

5     the total value of the account. Last value field **808** may indicate the last value

of the account on a particular date. Last date field **810** may indicate the date

on which the last value was provided. Finally, edit and delete fields **812** and

**814** may allow the depositor group to edit or delete information in accounts

section **800**.

10         Figure 9 illustrates an example of a transactions page **312** associated

with pooled depositor group interface **102**. In the illustrated example,

transactions page **312** includes a transaction history section **900** that stores a

history of deposits and withdrawals made by the pooled depositor group. In the

illustrated example, transaction history section includes a number field **902**, a

15    date field **904**, an operation field **906**, a from account field **908**, a to account

field **910**, an amount field **912**, and a terms field **914**. Number field **902** may

store a transaction number for a particular transaction of a pooled depositor

group. Date field **904** may store the date of the transaction. Operation field

**906** may store the type of transaction, i.e., whether the transaction was a

20    deposit or a withdrawal. From account field **908** specifies the account of the

pooled depositor group from which funds were withdrawn. To account field **910**

stores the master NOW account to which funds were deposited. Amount field

**912** stores the amount of the transaction. Finally, terms field **914** may display

terms associated with the transaction, such as the interest rate or the time period for the deposit.

Figure 10 illustrates an exemplary business rules page **314** associated with pooled depositor group interface **102**. In the illustrated example, business rules page **314** includes a business rules section **1000** that stores business rules of a pooled depositor group. Examples of business rules that may be stored in business rules section **1000** include a type or rating status of banks that the commercial pooled depositor group that the depositor group would be willing to deposit funds and whether or not to re-deposit proceeds. These rules may be used by control center **106** when determining the aggregate money supply available to a particular bank. For example, different amounts of funds may be made available to different banks depending on the banks' relative regulatory ratings.

Figure 11 illustrates an example of a market information page **318** that may be associated with commercial bank interface **118**. In the illustrated example, commercial banks market information page **318** includes the same fields described above with regard to the market information page **304** associated with pooled depositor group interface **102**. In Figure 11, these fields are renumbered **1102-1112**. Fields **1102-1112** display to the commercial bank information regarding cash demand, available cash, current interest rate, start date and end date for the interest rate, and terms and conditions. As discussed above, the values for these fields may be set by control center **106**. However, the interest rate displayed in current interest field **1106** of commercial bank market information page **318** is preferably different from that displayed in

the corresponding field of market information page **304** of pooled depositor groups interface **102**. As discussed above, the interest rates provided and displayed to pooled depositor groups and commercial banks may be set by the owners of control center **106**.

5      Figure 12 illustrates an example of a borrow page **320** of commercial banks interface **118**. In Figure 12, borrow page **320** includes functionality for allowing a commercial bank to borrow money made available by pooled depositor groups **100**. This functionality may be implemented in a plurality of input fields that receive data from the commercial bank and provide the data to

10    control center **106**. These fields may include a from account field **1202**, a to account field **1204**, an amount field **1206**, a borrow date field **1208**, a terms and conditions field **1210**, and a submit button **610**. A commercial bank uses from account field **1202** to specify a depositor group's account posted with custodian **108** from which the commercial bank desires to borrow money. To

15    account field **1204** allows the commercial bank to specify a master NOW account into which the borrowed funds are to be received. Amount field **1206** is used to specify the amount that the commercial bank desires to borrow. The commercial bank uses borrow date field **1208** to specify the date on which the funds are to be borrowed. Terms and conditions field **1210** specifies the terms

20    and conditions of the transaction. Finally, submit button **610** initiates a borrow transaction.

Figure 13 illustrates an exemplary repay page of commercial banks interface **118**. Repay page **322** includes functionality for allowing a commercial bank to repay funds borrowed from a pooled depositor group. In the illustrated

example, this functionality includes a from field **1300**, a to field **1302**, an amount field **1304**, and a repayment date field **1306**. From field **1302** allows a commercial bank to specify one of its accounts from which payment is to be withdrawn. To account field **1302** allows the commercial bank to specify a

5   pooled depositor group account to which payment is to be made. Amount field **1304** allows the commercial bank to specify a repayment amount. Repayment date field **1306** allows the commercial bank to specify a date for making the repayment. Finally, submit button **610** initiates the repayment transaction.

Figure 14 illustrates an exemplary accounts page **324** of commercial

10  banks interface **118**. In the illustrated example, accounts page **324** includes an accounts table **1400** for providing information regarding a master NOW account posted by a commercial bank. In the illustrated example, accounts table **1400** includes an account field **1400**, a manager field **1402**, a total value field **1406**, a last traded value field **1408**, a last traded date field **1410**, an edit field **1412**,

15  and a delete field **1414**. Account field **1400** stores an account identifier such as an account number. Manager field **1404** displays the manager of the account. Total value field **1406** displays the current value of the account. Last value field **1408** displays the last traded value of the account. Last traded date field **1410** stores the last date on which the account was traded. Finally, edit and

20  delete fields **1412** and **1414** allows the commercial bank to edit any of the account data.

Figure 15 illustrates an exemplary transactions page **326** of commercial banks interface **118**. In the illustrated example, transaction page **326** includes

a transactions history table **1500** for storing information regarding transfers to and from a commercial bank's accounts with custodian **108**. Transactions history table **1500** may include a transaction number field **1502**, a date field **1504**, an operation field **1506**, a from account field **1508**, a to account field

5    **1510**, an amount field **1512**, and a terms field **1514**. Transaction number field **1502** stores a number for a particular transaction. Date field **1504** stores the date of a transaction. Operation field **1506** stores the operation being performed, such as a withdrawal or a deposit. From account field **1508** specifies an account of a commercial bank from which funds are being

10   withdrawn. To account field **1510** stores an account to which funds are being deposited. Amount field **1512** stores an amount of funds affected by the transaction. Finally, terms field **1514** stores the terms associated with a transaction.

Figure 16 illustrates an exemplary business rules page **328** for

15   commercial banks interface **118**. In Figure 16, the business rules page includes a business rules table **1600** for storing business rules particular to commercial banks. In the illustrated example, business rules table **1600** includes a number field **1602**, a date created field **1604**, condition fields **1606**, **1608**, and **1610**, an action field **1612**, a current status field **1614**, and edit and

20   delete fields **1616** and **1618**. Number field **1602** stores an identifier for a particular business rule. Date created field **1604** stores a date on which a business rule is created. Condition field **1606**, **1608**, and **1610** store business rules for a commercial bank. Examples of business rules for a commercial

bank may include terms over which funds would be needed. Action field **1612** stores an action to be performed if the conditions in fields **1606**, **1608**, and **1610** are met. Current status field **1614** stores the current status of a particular business rule. Finally, edit and delete fields **1616** and **1618** allow a commercial

5    bank to edit or delete a business rule.

Figure 17 illustrates an exemplary market management page that may be displayed to custodian **108**. In the illustrated example, market management page **332** includes a market information section **1700** for displaying overall market information to custodian **108**. The market information section **1700** may

10    include a cash demanded field **1702**, a cash available field **1704**, a start date field **1706**, a borrower interest field **1708**, a lender interest field **1712**, and a terms and conditions field **1714**. Cash demanded field **1702** may display cash demanded by commercial banks **114**. Cash available field **1704** may display cash available from pooled depositor groups **100**. Start date field **1706** may

15    display the date on which cash is available. Borrower interest field **1708** may display the rate currently being paid by commercial banks **114**. Lender interest field **1710** may display the interest rate being paid to pooled depositor groups **100**. End date field **1712** may store the end date for a particular transaction. Finally, terms and conditions field **1714** may store terms and conditions

20    associated with the current market.

Figure 18 illustrates an exemplary lenders page **324** associated with custodian interface **112**. In the illustrated example, lenders page **324** includes a lender information table **1800** that displays information regarding a pooled

depositor group. Lenders table **1800** includes a customer ID field **1800**, an ABA field **1804**, an account number field **1806**, a contact field **1808**, and edit and delete fields **1810** and **1812**. Customer ID field **1802** displays values for identifying a particular customer. ABA field **1804** displays a unique identifier for

5    each lender. Account number field **1806** stores account numbers associated with NOW accounts posted by a particular commercial bank. Contact field **1808** may store contact information for individuals responsible for posting accounts with custodian **108**. Edit and delete fields **1810** and **1812** allow custodian **108** to change any of the data in the table.

10    Figure 19 illustrates an exemplary borrowers page **336** of custodian interface **112**. In the illustrated example, borrowers page **336** includes a borrowers table **1900** for displaying information about commercial banks **114**. Borrowers table **1900** includes a customer ID field **1902**, an ABA field **1904**, an account number field **1906**, a contact field **1908**, and edit and delete fields

15    **1910** and **1912**. Customer ID field **1902** displays identifiers for a particular commercial bank. ABA field **1904** stores a unique identifier for each borrower. Account number field **1906** stores and displays account numbers associated with a particular commercial bank. Contact field **1908** stores and displays contact information associated with an individual at a commercial bank in

20    charge of posting master NOW accounts. Edit and delete fields **1910** and **1912** allow custodian **108** to modify information in borrowers table **1900**.

Figure 20 illustrates an exemplary accounts page **338** associated with custodian interface **112**. In the illustrated example, accounts page **338**

includes an accounts table **2000** for storing information about accounts with

custodian **108**.   Accounts table **2000** includes an account field **2002**, a

manager field **2004**, a total value field **2006**, a last traded value field **2008**, a

last traded date field **2010**, and edit and delete fields **2012** and **2014**. Account

5      field **2002** stores identifiers for identifying a particular account.  Manager field

**2004** identifies the manager of a particular account.  Total value field **2006**

stores the total value of an account.  Last traded value field **2008** stores the last

traded value of a particular account. Last traded date field **2010** stores the last

date on which the account was traded.  Finally, edit and delete fields **2012** and

10     **2014** allow custodian **108** to modify fields in account table **2000**.

Figure 21 illustrates an exemplary transactions page **340** of custodian

interface **112**.  In the illustrated example, transactions page **340** includes a

transaction table **2100** for storing and displaying information regarding

transactions between pooled depositor groups **100** and commercial banks **114**.

15     Transactions table **2100** may include a customer ID field **2102**, a transaction

number field **2104**, a date field **2106**, an operation field **2108**, a from account

field **2110**, a to account field **2112**, an amount field **2114**, and a terms field

**2116**.  Customer ID field **2102** may store an identifier for a customer initiating a

transaction.  Number field **2104** may store an identifier for the transaction field.

20     Date field **2106** may store the date on which the transaction occurred.

Operation field **2108** may identify the type of transaction, i.e., withdrawal or

deposit.  From account field **2110** stores an account from which funds are

being withdrawn.  To account field **2112** stores an account to which funds are

being deposited. Amount field **2114** stores the amount of the transaction. Terms field **2116** stores and displays terms associated with the transaction.

Figure 22 illustrates an exemplary business rules page **342** of custodian interface **112**. In the illustrated example, business rules page **342** includes a

5    business rules table **2200** for storing business rules particular to a custodian. Custodian table **2200** may include a number field **2102**, a date created field **2204**, condition fields **2206**, **2208**, and **2210**, an action field **2212**, a current status field **2214**, and edit and delete fields **2216** and **2218**. Number field **2202** stores an identifier for a particular business rule. Date created field **2204** stores

10   and displays the date on which a business rule is created. Condition fields **2206**, **2208**, and **2210** store conditions associated custodian created business rule. Examples of custodian business rules include list of depositor groups from which to receive deposits, lists of banks to which deposits are to be made, maximum amounts for deposits, and cut-off times for deposits on given days.

15   Action field **2212** stores an action associated with a particular business rule. Current status field **2214** stores the current status of a business rule. Finally, edit and delete fields **2216** and **2218** allow custodian **108** to modify business rules in table **2200**.

Figure 23 illustrates an exemplary customers page that may be

20   associated with control center administration interface **110**. In the illustrated example, customers page **346** includes a customer section **2300** and a customer profile section **2302**. Customer section **2300** includes a table having a customer ID field, an ABA field, an account number field, a contact information field, and edit and delete fields **2312** and **2314**. Customer field

2304 stores identifiers for particular customers, including commercial banks and pooled depositor groups. ABA field 2306 stores a unique identifier for each customer. Account number field 2308 stores account numbers for each customer. Contact field 2310 stores and displays a contact person associated

5    with each customer. Edit and delete fields 2312 and 2314 allow an administrator alter each field.

Customer profile section 2302 includes a customer ID field 2316, a full name field 2318, a short name field 2320, a TIN field 2322, an ABA number field 2324, an account field 2306, and a notes field 2308. Each of the fields in

10   customer profile section 2312 is used to add customer entries to customer table 2300. Customer ID field 2316 is adapted to receive a customer name. Full name field 2318 receives the full name of a customer. Short name field 2320 may receive a shortened version of the customer name. TIN field 2322 receives a tax identification number. ABA field 2324 receives a unique

15   identifier for each customer. Account number field 2326 receives account numbers for a particular customer. Notes field 2328 stores notes associated with a particular customer. Once an administrator has completed the fields in customer profile section 2302, the administrator may select submit button 610 to create a new entry in customers table 2300.

20   The remaining screens of administration interface 110 may be similar in format to those previously described. Administration interface 110 preferably allows the owners of control center 106 to collect sub-accounting information and transaction information from inventors 100. Administration interface 110

may also include functionality for allowing the owners of control center **106** to collect demand information from commercial banks **114**. Administration interface **110** preferably also includes functionality for allowing control center **106** to instruct custodian **108** to transfer cash between depositors **100** and commercial banks **114**. Yet another function that may be provided by administration interface **110** is the ability to calculate fees to be paid by commercial banks **114** to depositors **100** and to distribute these fees to the appropriate parties.

## Example Transaction

As discussed above, the present invention facilitates transactions between pooled depositor groups **100** and commercial banks **114** by providing a convenient software interface for these groups to perform financial transactions. In one exemplary transaction, a commercial bank may register with control center **106** by accessing a registration web page provided by control center **106** and providing information that may be used by control center **106** to qualify the entity as a commercial bank. Once control center **106** qualifies the entity as a commercial bank, control center **106** provides a NOW account agreement to the commercial bank. Once the NOW account agreement is executed, control center **106** provides the commercial bank with a password and login ID to access a personalized commercial banks interface **118**. The commercial bank uses commercial banks interface **118** to define its business rules and communicate deposit needs to custodian **108**.

A depositor seeking to provide funds for deposit purposes accesses the registration web page provided by control center **106** and provides information usable by control center **106** to qualify the depositor. As discussed above, a pooled depositor group may be any group that is permitted to deposit funds in a

5   NOW account. Such groups include municipalities, trust departments, pension funds, or any other group that can invest in a NOW account. Control center **106** also enters a deposit agreement with the depositor group. Once the agreement has been executed, control center **106** provides the depositor group with a password and login ID.

10  Once the depositor group receives its password and login ID, the depositor group accesses depositor interface **102** using the password and login ID and customizes the depositor interface to meet the depositor's business needs. For example, customizing the interface may include defining business rules associated with the particular depositor and specifying an amount of

15  funds available for deposit. One particular business rule that the depositor may define includes whether or not all funds of all depositors are to be FDIC insured.

In order to deposit money, the depositor accesses depositor interface **102** and receives, in real time, the amount of money needed collectively by

20  commercial banks **114** and the interest rate currently being paid for the money. If the interest rate is agreeable to the depositor group, the depositor group inputs information as to the amount of funds to be deposited, sub-accounting information, and when the funds are to be made available. This information is provided to control center **106**. Control center **106** provides the sub-accounting

information to custodian **108**. Control center **106** also provides wiring instructions for the depositor group to transfer the money to custodian **108**. Control center **106** informs custodian **108** to post the funds in a particular master NOW account. Custodian **108** may notify the commercial banks whose

5    NOW accounts are being affected of the incoming cash. Control center **106** preferably also provides instructions to custodian **108** as to which banks to wire the funds.

As indicated above, the system illustrated in Figure 1 preferably allows depositors **100** to withdraw funds deposited in a master NOW account on a

10    daily basis without penalty. One method for withdrawing funds includes identifying the bank in which a particular depositor's funds are deposited and providing wiring instructions for the bank to wire the requested funds to be withdrawn to custodian **108** and wiring the funds from custodian **108** to the requesting depositor group. While this method works, it is expensive due to the

15    wiring transaction fees involved in delivering the funds from commercial banks **114**, to custodian **108**, and to depositors**100**. In addition, this method unnecessarily displaces cash currently held by banks **114**.

In order to reduce transaction expenses associated with withdrawals and to reduce displacement of cash held by commercial banks, custodian **108** may

20    identify incoming deposits and withdrawal requests from depositors **100** on a given day, and, rather than requesting funds from a bank to satisfy withdrawal requests and then providing funds to the bank from an incoming deposit, custodian **108** may satisfy a withdrawal request from one depositor group using incoming funds from another depositor group. When this occurs, custodian

**108** may simply update its accounting records so that ownership of the deposited funds of the depositor group requesting the withdrawal is changed to reflect that the depositor group whose incoming funds were used to satisfy the withdrawal is now the owner of the deposited funds. For example, if depositor

5      group A requests a $50,000 withdrawal and depositor group B simultaneously deposits $100,000, custodian **108** may satisfy depositor group A's withdrawal request with $50,000 of depositor group B's incoming funds. Custodian **108** then updates its accounting records so that $50,000 of depositor group A's funds deposited in a particular NOW account are now owned by depositor

10     group B. The remaining incoming funds from depositor group B may then be deposited in any master NOW account posted by commercial banks **114**. By satisfying incoming withdrawal requests with incoming funds, custodian **108** reduces transaction fees and increases the depositor's return.

Thus, as described above, the present invention provides a convenient

15     software interface for facilitating transactions between commercial banks and pooled depositor groups. The software interface may be implemented as web pages displayed to a custodian, pooled depositor groups, commercial banks, and an administrator. By aggregating deposit needs of multiple pooled depositor groups, the control center produces a stable source of funds for

20     commercial banks that the commercial banks can consider as core deposits. In addition, because of the stable nature and volume of such funds, the commercial banks may be willing to pay a higher interest rate than the pooled depositor groups expect. As a result, the owners of the control center can generate revenue for facilitating the transactions.

It will be understood that various details of the invention may be changed without departing from the scope of the invention. Furthermore, the foregoing description is for the purpose of illustration only, and not for the purpose of limitation, as the invention is defined by the claims as set forth

5  hereinafter.